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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,546	01/28/2002	Norman A. Gardner	D8357-00007	4991

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EXAMINER

SMITH, ZANDRA V

ART UNIT PAPER NUMBER

2877

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/058,546

Applicant(s)

GARDNER ET AL.

Examiner

Zandra V. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by *Oshima et al.* (US 5,932,139).

As to **claim 1**, Oshima discloses a fluorescent substance, fluorescent composition  
fluorescent mark carrier and optical reader, comprising:

providing at least one latent marking agent that emits a signal at an emission wavelength in response to being irradiated with radiation at an excitation wavelength, wherein the latent marking agent comprises at least one inorganic pigment and wherein the signal is at least a portion of the source information (col. 54, line 65-col. 55, line 50); and

affixing the at least one marking agent to a substrate and wherein a first latent marking agent emits a first signal at a first emission wavelength and a second latent marking agent emits a second signal at a second emission wavelength and wherein the first and second emission wavelengths are different (col. 54, line 65-col. 55, line 50);

detecting the latent marking agent (col. 54, line 65-col. 55, line 50); and

a process for providing ink with a viscosity for effective printing of the source information (col. 30, lines 42-65), the process comprising mixing an effective amount of inorganic pigment ( col. 29, lines 55-60 and col. 68, lines 45-51) into the ink during manufacture.

As to **claim 5**, Oshima discloses everything claimed, as applied above, in addition the pigment includes yttrium phosphors (col. 29, line 55-60).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Oshima et al. (US 5,932,139)* in view of *Thomas (US 3,823,022)*.

As to **claims 2-4 and 10**, Oshima discloses everything claimed, as applied above, with the exception the use of a leuco-dye and a Lewis acid, however to do so is well known as taught by Thomas. Thomas discloses a method for making copy sheets with a concealed image and visual development of the same that include a leuco-dye (up-converting pigment) and a Lewis acid (col. 2, lines 38-46). It would have been obvious to one having ordinary skill in the art at the time of invention to use a leuco-dye and Lewis acid in the preparation of concealed images to provide rapid visual images and higher color intensity. As to the 1:2 ration of leuco-dye to Lewis acid, since the leuco-dye is a color precursor and acts as a Lewis base to the color triggering Lewis acid, it would have been obvious to one having ordinary skill in the art at the time of invention to provide any combination capable of inducing a color change in the dye.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Oshima et al. (US 5,932,139)* in view of *Singer (US 5,636,874)*.

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As to **claim 6**, Oshima discloses everything claimed, as applied above, with the exception of flexographic ink however to do so is well known as taught by Singer. Singer discloses a temperature sensitive security document in which flexographic ink is used (col. 4, lines 60-68). It would have been obvious to one having ordinary skill in the art at the time of invention to use flexographic ink since flexographic ink is thin, fast drying and may be used as a disappearing or color change background.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Oshima et al. (US 5,932,139)* in view of *Singer (US 5,636,874)*.

As to **claim 7**, Oshima discloses a fluorescent substance, fluorescent composition fluorescent mark carrier and optical reader, comprising:

providing at least one latent marking agent that emits a signal at an emission wavelength in response to being irradiated with radiation at an excitation wavelength, wherein the latent marking agent comprises at least one inorganic pigment and wherein the signal is at least a portion of the source information (col. 54, line 65-col. 55, line 50); and

affixing the at least one marking agent to a substrate and wherein a first latent marking agent emits a first signal at a first emission wavelength and a second latent marking agent emits a second signal at a second emission wavelength and wherein the first and second emission wavelengths are different (col. 54, line 65-col. 55, line 50);

detecting the latent marking agent (col. 54, line 65-col. 55, line 50); and

a process for providing ink with a viscosity for effective printing of the source information (col. 30, lines 42-65), the process comprising mixing an effective amount of inorganic pigment ( col. 29, lines 55-60 and col. 68, lines 45-51) into the ink during manufacture.

Oshima differs from the claimed invention in that flexographic ink is not used, however to do so is well known as taught by Singer. Singer discloses a temperature sensitive security document in which flexographic ink is used (col. 4, lines 60-68). It would have been obvious to one having ordinary skill in the art at the time of invention to use flexographic ink since flexographic ink is thin, fast drying and may be used as a disappearing or color change background.

#### ***Allowable Subject Matter***

Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken alone or in combination, fails to disclose or render obvious, ink displaying different visible responses before and after rubbing or scratching when the substrate is exposed to the claimed wavelengths, in combination with the rest of the limitations of claim.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 8 of U.S. Patent No. 6,483,576 in view of Oshima et al. (US 5,932,139).

As to **claims 1 and 7**, '139 provides providing at least one latent marking agent containing an inorganic pigment that fluoresces at a first emission wavelength in response to illumination at a first excitation wavelength, and also fluoresces at a second emission wavelength in response to illumination at a second excitation wavelength, wherein the first and second excitation wavelengths are unequal and are outside of a visible spectrum, and the first and second emission wavelengths are unequal and are within the visible spectrum;

affixing said at least one latent marking agent to said substrate', and detecting said at least one latent marking agent for distinguishing said substrate from other similar substrates (see claim 8). '139 differs from the claimed invention in that the process for applying the ink is not provide, however to do so is well known as taught by Oshima. Oshima discloses a fluorescent substance, fluorescent composition fluorescent mark carrier and optical reader that includes a process for providing ink with a viscosity for effective printing of the source information (col. 30, lines 42-65), the process comprising mixing an effective amount of inorganic pigment ( col. 29, lines 55-60 and col. 68, lines 45-51) into the ink during manufacture. It would have been obvious to one having ordinary skill in the art at the time of invention to include a process for providing the ink to ensure that the ink is properly applied to the substrate such that an appropriate image is obtained.

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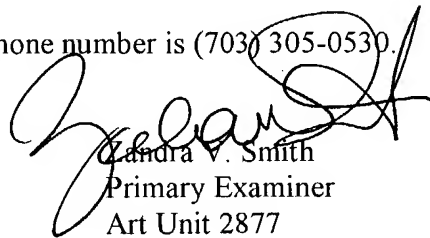
***Fax/Telephone Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zandra V. Smith whose telephone number is (703) 305-7776.

The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703)308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0530.



Zandra V. Smith  
Primary Examiner  
Art Unit 2877

January 16, 2004